

EFFECT OF MILK FAT REPLACEMENT WITH SUNFLOWER OIL RICE BRAN WAX ORGANOGEL ON PHYSICO CHEMICAL CHARACTERISTICS OF DIETETIC ICE CREAM

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An experiment has been carried out to study the milk fat replacement with sunflower oil rice bran wax organogel on physico chemical characteristics of ice cream. Sunflower oil rice bran wax organogel was used at 0, 2.5, 5.0, 7.5 and 10.0 per cent as a milk fat replacer to develop dietetic ice cream. Sunflower oil rice bran wax organogel was obtained by combining 10 per cent (wt) of RBW and 90 per cent (wt) of sunflower oil. Ice cream formulation was comprised of 12 percent SNF, 10

per cent fat, 15 per cent sugar, 0.5 per cent stabilizer and 36 per cent total solids. The mean value of pH in the control ice cream mix was 6.39 ± 0.014 and in the treatment groups ranged from 6.36 to 6.40. The titrable acidity of different treatment ice creams ranged from 0.214 to 0.217 per cent and in control ice cream 0.214 per cent. Similarly the viscosity of the control ice cream mix was 66.12 and in the treatment groups ranged from 60.17 to 65.82. Mean value of overrun in the control ice cream was 37.63 per cent and it ranged from 26.79 to 34.55 per cent in different treatment ice creams. The mean whipping ability of control ice cream was 46.95 per cent and it ranged from 37.5 to 45.14 per cent in the treatments. Hence it can be concluded that milk fat replacement with sunflower oil ricebran wax organogel did not have any impact on pH, titrable acidity but in viscosity, whipping ability and overrun up to 5 per cent sunflower oil organogel incorporation comparable with control ice cream beyond that there was decreasing trend was noticed.